

Claims

1. User-side device arrangement (10, 12) for a data transfer service

5 having a service usage computer (10) containing at least one storage unit (18) in which program instructions can be stored and containing at least one processor (16) which executes the stored program instructions,

10 having a signaling unit (34) whose signaling functions provided by the service usage computer (10) enable the use of additional features of the data transfer service, and

having a useful-data processing unit (56) that processes the useful
15 data which is to be or which has been transferred within the scope of the data transfer service,

wherein a supplementary unit (12) contains an additional storage unit and an additional processing unit and provides the functions of the
20 useful-data processing unit (56).
2. Device arrangement (10, 12) according to claim 1,
characterized in that
the service usage computer (10) contains an operating system program
25 (22) providing basic functions for operating the service usage computer (10), and

in that the supplementary unit (12) contains an additional operating system program providing basic functions for operating the
30 supplementary unit (12) or in that the supplementary unit (12) contains a circuit whose basic functions are provided without the involvement of an operating system program.
3. Device arrangement (10, 12) according to claim 1 or 2,
35 characterized in that
the supplementary unit (12) is located in its own housing preferably outside the service usage computer (10), and/or

in that the supplementary unit (12) contains its own power supply unit operating independently of a power pack of the service usage computer (10), and/or

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in that the supplementary unit (12) is connected to the power supply of a data transmission network (14), and/or

10 in that the supplementary unit (12) will also provide basic functions of the data transfer service when the service usage computer has been deactivated, in particular the answering of an incoming call and/or the setting up of an outgoing call, and/or

in that the supplementary unit (12) is contained in a handset.

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4. Device arrangement (10, 12) according to one of the preceding claims,

characterized in that

20 the service usage computer (10) is a computer not having a magnetic storage unit and/or not having a voice processing unit, and/or

in that the service usage computer (10) is a network computer which receives at least one application program at each launch over the data transmission network (14).

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5. Device arrangement (10, 12) according to one of the preceding claims,

characterized in that

30 the service usage computer (10) and the supplementary unit (12) each contain a transmitting/receiving unit (32, 52) which transmits and receives data packets over a data transmission network (14),

35 wherein the data transmission network (14) operates preferably according to the Internet Protocol or according to a protocol based on the Internet Protocol.

6. Device arrangement (10, 12) according to claim 5,

characterized by
a setting unit (38) contained in the service usage computer (10),
which unit provides setting functions for configuring the
supplementary unit (12), and

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by a communication function in the setting unit (38) which transmits
setting values from the setting unit (38) to the
transmitting/receiving unit (32) of the service usage computer.

10 7. Device arrangement (10, 12) according to one of the preceding
claims,

characterized in that
the supplementary unit (12) contains a transmitting/receiving unit
(52) which, to provide the data transfer service, receives useful
15 data over a data transmission network (14) and/or transmits useful
data into the data transmission network (14),

wherein the data transmission network (14) operates preferably
according to the Internet Protocol or according to a protocol based
20 on the Internet Protocol, and/or

wherein the useful data is voice data and/or video data, and/or

in that the useful data is transmitted according to the H.323
25 protocol or a protocol based thereon, and/or

in that signaling messages are transmitted to the
transmitting/receiving unit (52) of the supplementary unit (12)
according to a control protocol for transferring useful data in data
30 packets, preferably according to the H.225 protocol or according to
the H.245 protocol or according to the SIP protocol.

8. Device arrangement (10, 12) according to one of the preceding
claims,

35 characterized in that
the signaling unit (34) in the service usage computer (10) provides
functions of an interface that have been specified for users (TlnA)

on a private branch exchange or for an interface based on an interface of this type, preferably functions of a UP0 interface or of a CorNet interface.

- 5 9. Device arrangement (10, 12) according to one of the preceding claims,
characterized in that
the signaling unit (34) and/or the setting unit (38) contains an
interface (42) to a data viewing program (43) serving to access data
10 over a data transmission network (14), preferably text data
represented according to a text description language.
10. Device arrangement (10, 12) according to one of the preceding claims,
15 characterized by
a load controlling unit that registers cases of overload on the data
transmission network (14) between the service usage computer (10) and
the supplementary unit (12) and
- 20 which, in the event of cases of overload, will give priority to
forwarding the useful-data packets for the data transfer service.
11. Supplementary unit (12), in particular for a device arrangement
(10, 12) according to one of the preceding claims,
25 having a useful-data processing unit (56) for processing useful data
transferred within the scope of a data transfer service,
- having a transmitting/receiving unit (52) for connection to a data
30 transmission network (14),
- having a control unit (66) for controlling the useful-data processing
unit (56), and
- 35 having a communication function for exchanging control messages or
control signals between the control unit (66) and the useful-data
processing unit (56).

claims

1. User-side device arrangement (10, 12) for a data transfer service having a service usage computer (10) and a separate supplementary unit (12) assigned to said service usage computer (10) which are connected to each other via a data transmission network (14), wherein the service usage computer (10) contains the following units:

- at least one storage unit (18) in which program instructions can be stored,
- at least one processor (16) which executes the stored program instructions, and
- a signaling unit (34) for implementing features of the data transfer service,

wherein the supplementary unit (12) contains the following units:

- a useful-data processing unit (56) that processes the useful data to be transferred or actually transferred within the scope of the data transfer service, and
- an additional storage unit and an additional processor providing functions of the useful-data processing unit (56).

2. Device arrangement (10, 12) according to claim 1, characterized in that the service usage computer (10) contains an operating system program (22) providing basic functions for operating the service usage computer (10), and in that the supplementary unit (12) contains an additional operating system program providing basic functions for operating the supplementary unit (12) or in that the supplementary unit (12) contains a circuit whose basic functions are provided without the involvement of an operating system program.

3. Device arrangement (10, 12) according to claim 1 or 2, characterized in that the supplementary unit (12) is located in its own housing preferably outside the service usage computer (10), and/or

ART 34 AMDT

in that the supplementary unit (12) contains its own power supply unit operating independently of a power pack of the service usage computer (10), and/or

in that the supplementary unit (12) is connected to the power supply of a data transmission network (14), and/or

in that the supplementary unit (12) will also provide basic functions of the data transfer service when the service usage computer has been deactivated, in particular the answering of an incoming call and/or the setting up of an outgoing call, and/or

in that the supplementary unit (12) is contained in a portable device.

4. Device arrangement (10, 12) according to one of the preceding claims,

characterized in that the service usage computer (10) is a network computer which receives at least one application program at each launch over the data transmission network (14).

5. Device arrangement (10, 12) according to one of the preceding claims,

characterized in that the service usage computer (10) contains a transmitting/receiving unit (32, 52) which transmits and receives data packets over a data transmission network (14), wherein the data transmission network (14) operates preferably according to the Internet Protocol or according to a protocol based on the Internet Protocol.

6. Device arrangement (10, 12) according to claim 5,

characterized by a setting unit (38) contained in the service usage computer (10), which unit provides setting functions for configuring the supplementary unit (12), and

by a communication function in the setting unit (38) which transmits setting values from the setting unit (38) to the transmitting/receiving unit (32) of the service usage computer.

ART 34 AMDT

7. Device arrangement (10, 12) according to one of the preceding claims,

characterized in that

- 5 the supplementary unit (12) contains a transmitting/receiving unit (52) which, to provide the data transfer service, receives useful data over a data transmission network (14) and/or transmits useful data into the data transmission network (14), wherein the data transmission network (14) operates preferably according to the Internet Protocol or according to a protocol based on the Internet Protocol.

8. Device arrangement (10, 12) according to claim 7,

characterized in that

the useful data is voice data and/or video data, and/or

- 15 in that the useful data is transmitted according to the H.323 protocol or a protocol based thereon, and/or
in that signaling messages are transmitted to the transmitting/receiving unit (52) of the supplementary unit (12) according to a control protocol for transferring useful data in data packets,
20 preferably according to the H.225 protocol or according to the H.245 protocol or according to the SIP protocol.

9. Device arrangement (10, 12) according to one of the preceding claims,

- 25 characterized in that

the signaling unit (34) in the service usage computer (10) provides functions of an interface that have been specified for users (TlnA) on a private branch exchange or for an interface based on an interface of this type, preferably functions of a UP0 interface or of a CorNet interface.

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10. Device arrangement (10, 12) according to one of the preceding claims,

characterized in that

- 35 the signaling unit (34) and/or the setting unit (38) contains an interface (42) to a data viewing program (43) serving to access data

ART 34 AMDT

over a data transmission network (14), preferably text data represented according to a text description language.

11. Device arrangement (10, 12) according to one of the preceding
 5 claims,
 characterized by
 a load controlling unit that registers cases of overload on the data
 transmission network (14) between the service usage computer (10) and
 the supplementary unit (12) and which, in the event of cases of over-
 10 load, will give priority to forwarding the useful-data packets for
 the data transfer service.

12. Supplementary unit (12) for a device arrangement (10, 12) accord-
 ing to one of the preceding claims,
 15 - having a useful-data processing unit (56) for processing useful
 data transferred within the scope of a data transfer service,
 - having a transmitting/receiving unit (52) for connection to a data
 transmission network (14),
 - having a control unit (66) for controlling the useful-data proc-
 20 essing unit (56), and
 - having a communication function for exchanging control messages or
 control signals between the control unit (66) and the useful-data
 processing unit (56).

13. Service usage computer (10) for a device arrangement according to
 claims 1 to 10,
 - having at least one storage unit (18) in which program instruc-
 tions can be stored and having at least one processor (16) which
 executes the stored program instructions,
 30 - having a signaling unit (34) for implementing features of the data
 transfer service

wherein the service usage computer does not contain a useful-data
 processing unit (56) processing the useful data that is to be or has
 been transferred within the scope of the data transfer service.

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ART 34 AMEND

14. Method for operating a device arrangement (10, 12) according to one of preceding claims 1 to 11 having the following steps requiring to be carried out, with no restrictions imposed thereon by the sequence indicated:
- 5 - provisioning of a signaling unit (34) for the use of additional features of a data transfer service in a first device (10),
 - provisioning of a useful-data processing unit (56) in a second device (12),
 - assigning the two devices (10, 12) to each other,
 - 10 - simultaneous use of the two devices (10, 12) for providing a data transfer service and/or associated additional features.
15. Program having an instruction sequence during whose execution by a processor the functions relating to the service usage computer (10)
- 15 and/or the functions relating to the supplementary unit (12) are provided according to one of claims 1 to 14.